



**LCD-4004TFT**

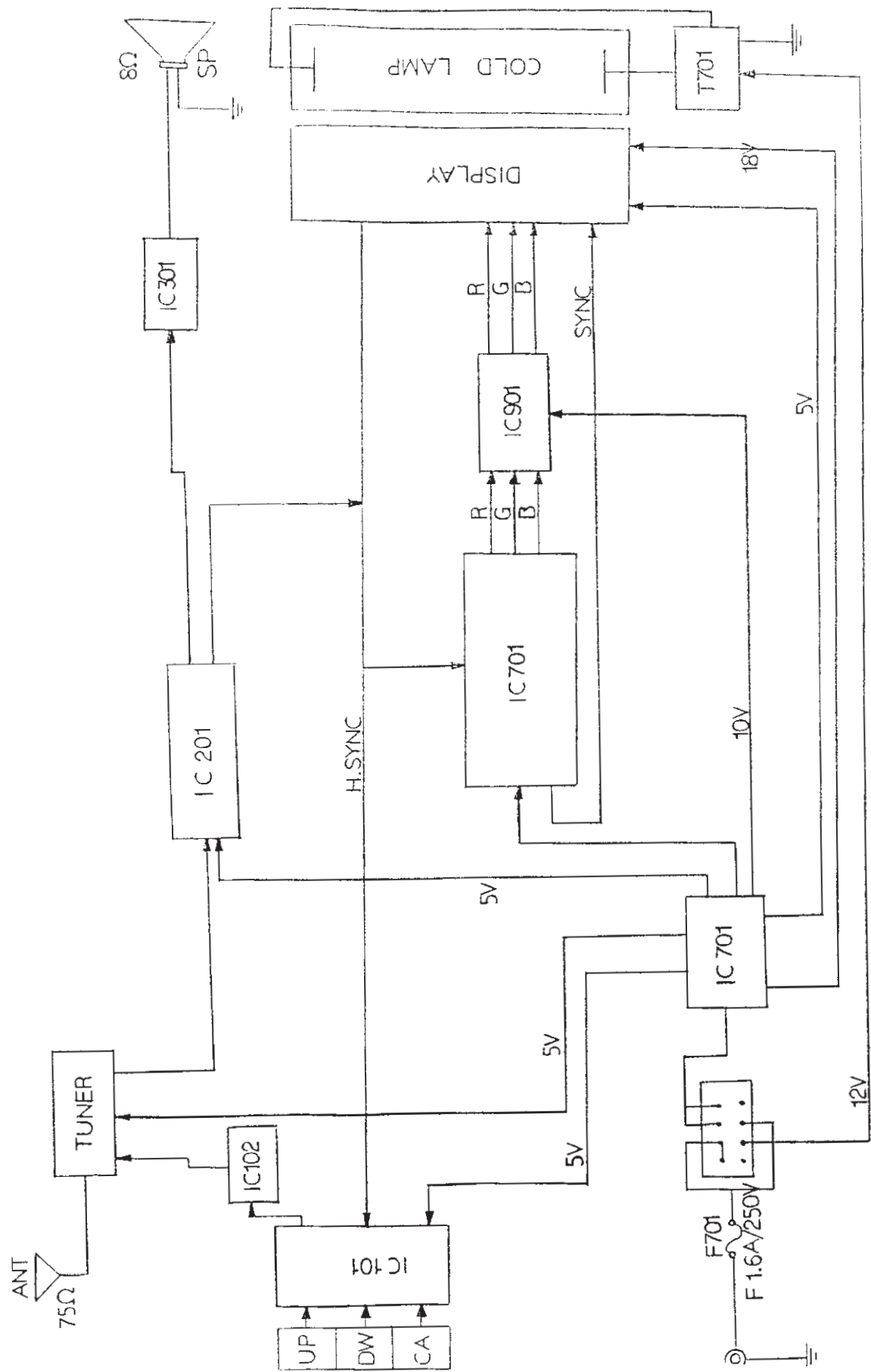
**Service Manual** - LCD-4004TFT

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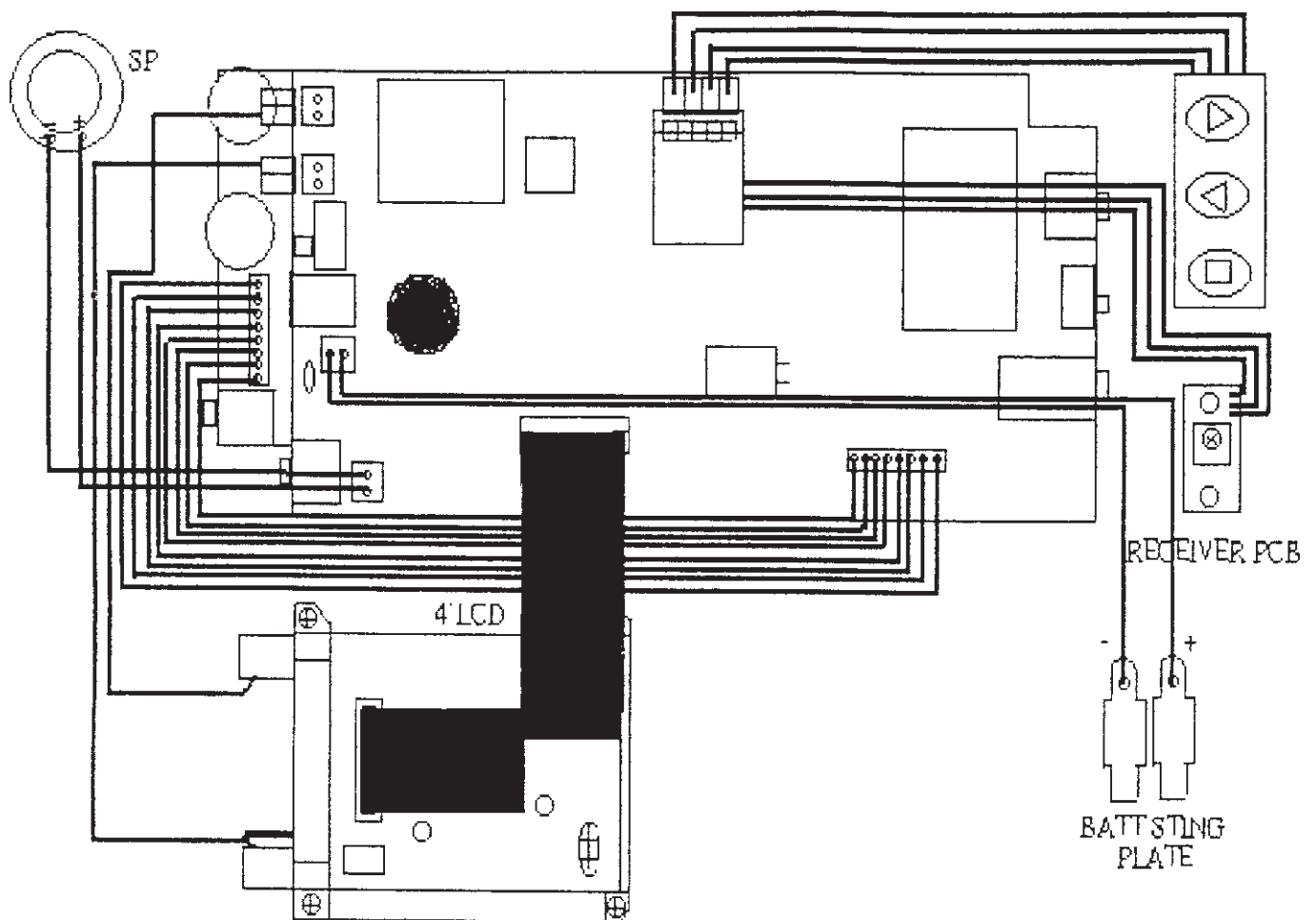
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PTCV-601 BLOCK DIAGRAM



## TV SET WIRING DIAGRAM



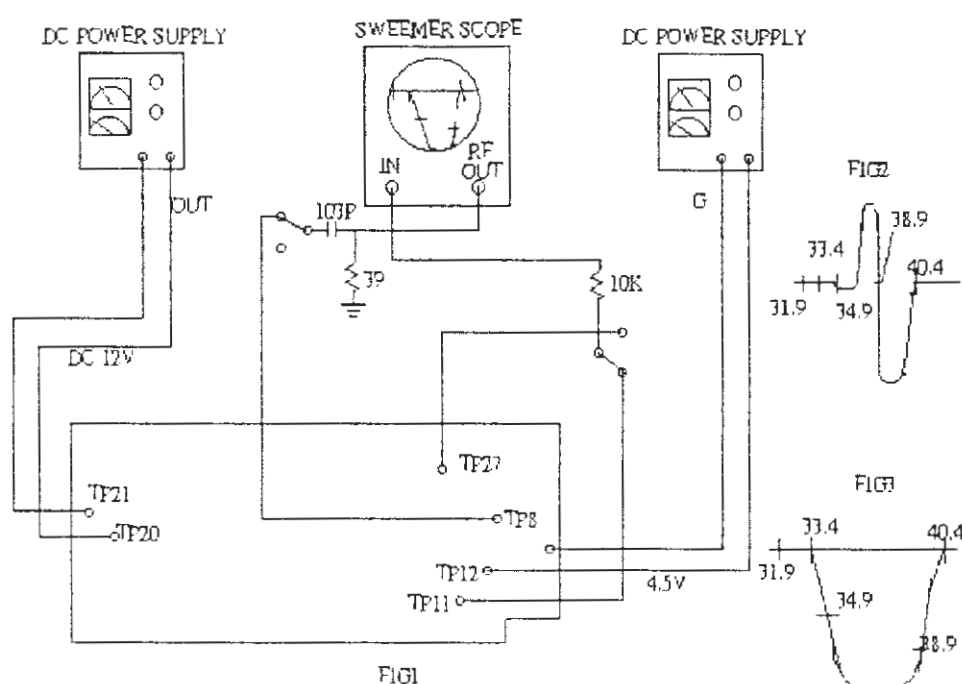
## TV ADJUSTMENT

### 1. PIF/AFC CURVE ADJUSTMENT

TEST EQUIPMENT CONNECTION (SEE FIGURE)

ADJUST SWEEP GENERATOR TO LOEWST SIGNAL LEVEL CONSISTENT WITH USABLE

STEP	SWEEP FREQUENCY	MARKER FREQUENCY	REMARK
ADJUST VIF DETECTION	25-45MHZ (30-50 MHZ FOR CCIR. NTSC)	SYSTEM B.C.G.H 36.7M HZ SYSTEM M.N 44MHZ SYSTEM I 37.3MHZ	IN THE PARENTHESES FOR EXCEPTION

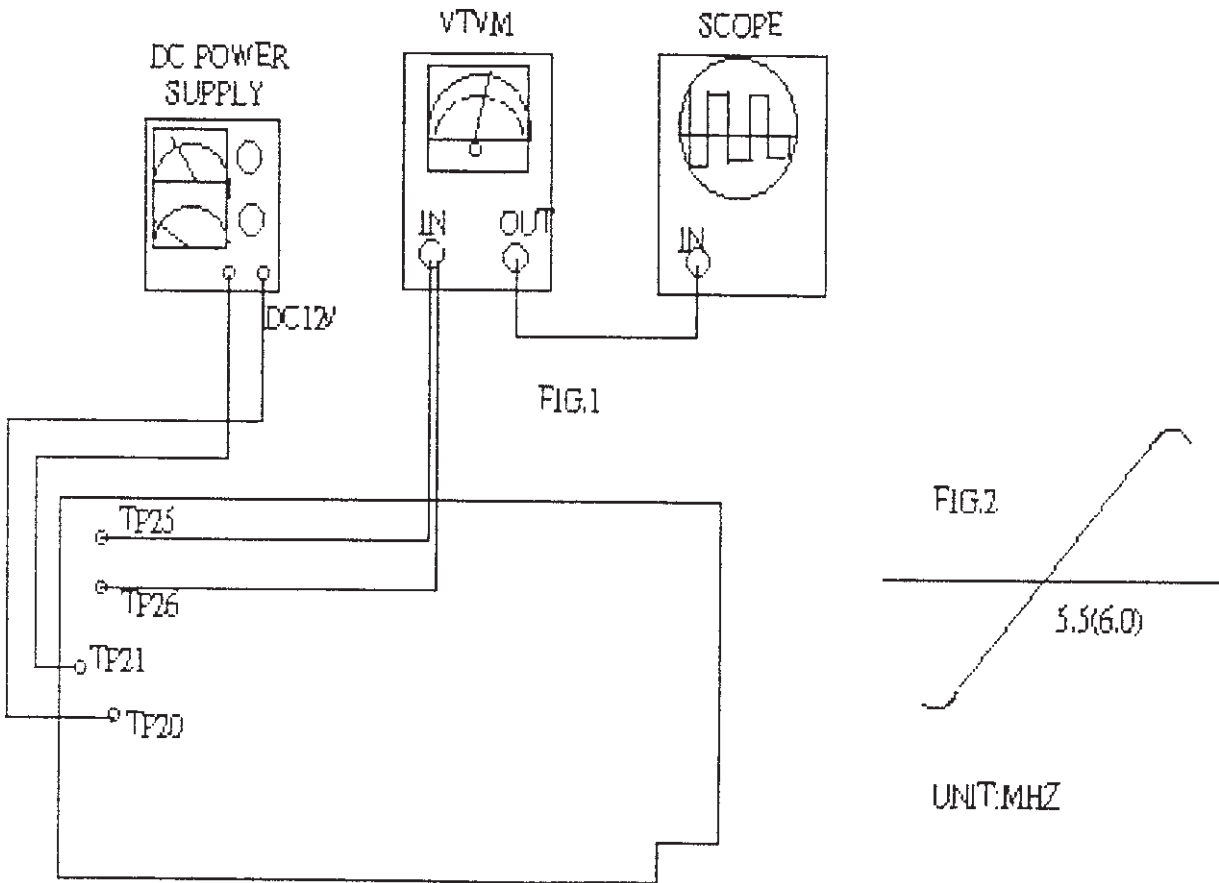


### AS ABOVE PIF/AFC CURVE

1. ADJUSTMENT SW701 SWITCH FOR ON
  2. EXTRA DC VOLTAGE 12V CONNECT TO TP20 WITH GND TP21
  3. EXTRA DC VOLTAGE 4.5V CONNECT TO TP12 WITH GND
  4. SWEEPER SCOPE: TO IN CONNECT TO THE BASE OF TP11 ADJUST T202 (FIG2)  
TO IN CONNECT TO THE BASE OF TP27 ADJUST T201 (FIG3)
  5. SWEEPER SCOPE: TO RF/OUT CONNECT TO THE BASE OF TP8  
(CCIR B/G NTSC VERSION)
- FREQUENCY: B/G: 31.9MHZ, 33.4MHZ, 34.47MHZ, 38.9MHZ, 40.4MHZ.  
FREQUENCY: NTSC: 39.75MHZ, 41.25MHZ, 42.17MHZ, 45.75MHZ, 47.25MHZ.

2.SIF CURVE ADJUSTMENT  
TEST EQUIPMENT CONNECTION

STEP	GENERATIO	SCOPE	ADJUST	REMARKS
ADJUST SOUND DETECTION	SYSTEM B.C.G.H 5.5MHZ SYSTEM M.N 4.5MHZ SYSTEM I 6.0MHZ	CONNECT TO THE TP25 TP26	T301	BECOMES ABOVE "S" CURVE OF SIF
ADJUST SOUND DETECTION	FIG.2	FIG.1		METHOD OF MEASUREMENT AND CURVE



AS ABOVE SIF CURVE  
(CCIR-B/G NTSC VERSION)  
FREQUENCY:NTSC-4.5MHZ B/G-5.5MHZ I-6.0MHZ

SPECIFICATION					
TV General information: TV 75 $\Omega$ input Ant. Side Voltage 0db=1uv					
NO	ITEM	NOMINAL	LIMIT	UNIT	REMARKS
1	TUNING RANGE	VHF CH2-12 (CH2-13) UHF CH21-69 (CH14-69)	+/-5MHZ +10-5MHZ	MHZ MHZ	CCIR(NTSC) CCIR(NTSC)
2	PEAK PICTURE SENSITIVITY	VHF CH-25 UHF CH-30	$\leq 40$ $\leq 40$	db db	AT1/2OUTPUT VOLTAGE
3	USABLE PICTURE SENSITIVITY	VHF -70 UHF -69	$\leq -55$ $\leq -55$	dbm dbm	
4	PICTURE IF REJECTION RATIO UNBALANCE	VHF CH-60 UHF CH-60	$\geq 45$ $\geq 45$	db db	
5	PICTURE IMAGE REJECTION RATIO	VHF CH-50 UHF CH-45	$\geq 25$ $\geq 25$	db db	
6	MAX USABLE INPUT SIGNAL	VHF 105-110 UHF 95-110	$\geq 110$ $\geq 90$	db db	
7	COLOUR KILLER LEVEL	CH-21 32	20~40	dbuv	
8	10% DISTORED AUDIO OUTPUT	0.3	+/-0.1	W	
9	AUDIO S/N INPUT LEVEL	CH-12 40	+/-10	db	
10	DC INPUT	12	10~15	V	
11	POWER CONSUMPTION	500	(MAX)	mA	
12	BATTERY POWER	15	(MAX)	V	
13	SPEAKER (10x23)	0.5	(MAX)	$\Omega$	
14	DIMENSION	150(L)X50(D)X105(H)	$\pm$	mm	
15	WEIGHT TV ONLY BATTERY ONLY	490 80	$\pm$	g g	
16	REMOTE CONTROL OPERATION RANGE /OPERATION 20° ANGLE RANGE	3.5	$\geq$	M	

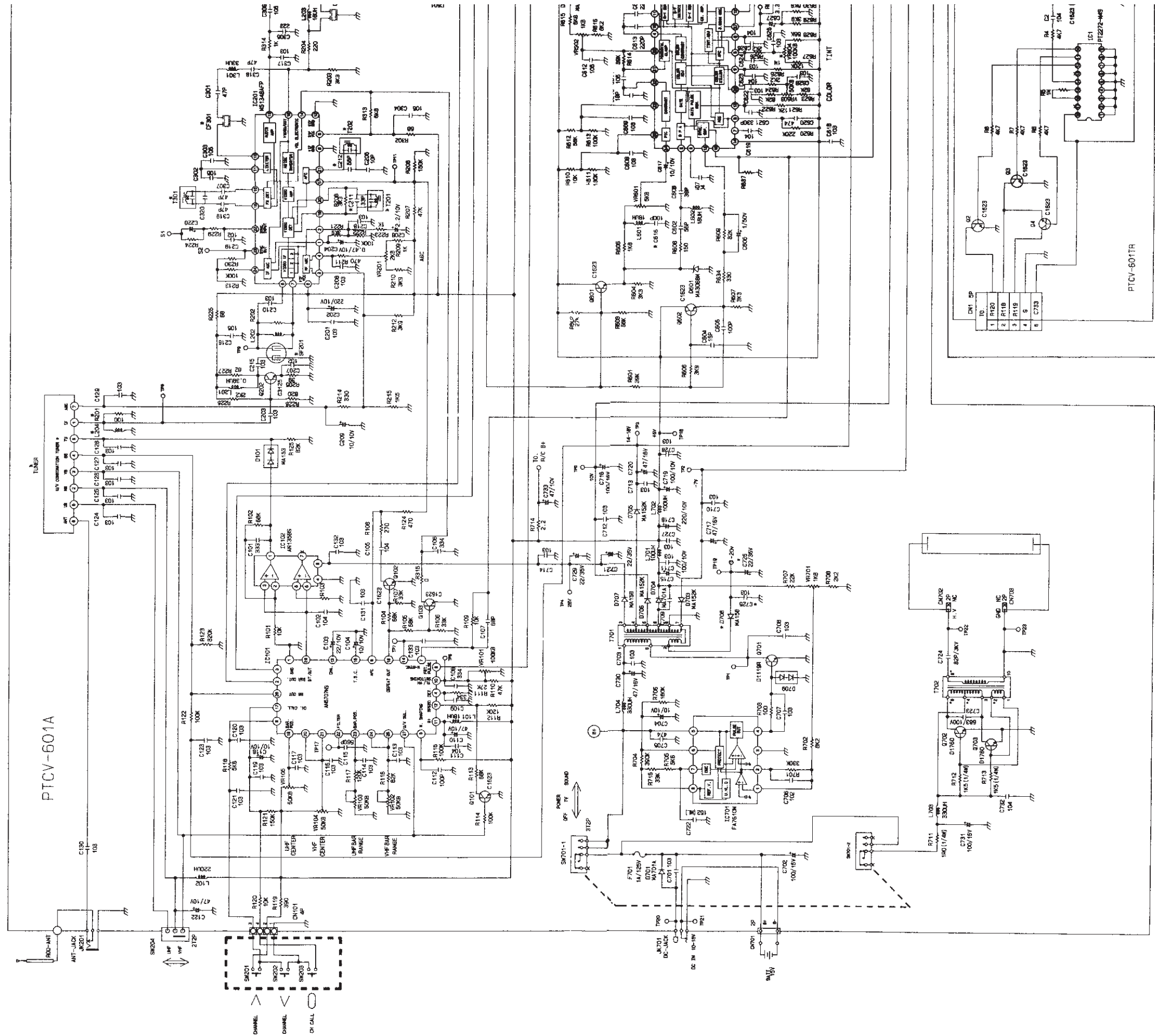
4" TFT-LCD MODULE SPECIFICATION		
NO	ITEM	SPECIFICATION
01	Display resolution	480(W)X234(H)
02	Active area (mm)	82.1(W)X61.7(H)
03	Screen size (inch)	4(Diagonal)
04	Dot pitch (mm)	0.171(W)X0.264(H)
05	Color configuration	R.G.B Deita
06	Overall dimensions (mm)	104.5(W)X83(H)X20.5(D)
07	Weight (g)	≐ 120



1. CONNECT TV TO DC 12V-15V POWER SW SW701 TO ON
2. BAND SWITCH SW204 TO VHF
3. CONNECT A DC DIGITAL VOLTMETER OR OTHER PRECISION ACCURACY VOLTMETER TO THE COLLECTOR OF THE REGULATOR OUTPUT TRANSISTOR (OR ANY 5V VOLT TEST POINT OR TP18)
4. POWER ADJUSTMENT:  
ADJUST THE POWER ADJUST SVR701 ENABLE VOLTMETER TO DC5V
5. VHF/UHF FREQUENCY SETTING:  
ADJUST THE SVR101 VHF/UHF FREQUENCY SETTING DC 2.8V
6. RF AGC ALIGNMENT:  
ADJUST FR AGC SVR201 AT INPUT SIGNAL INTENSITY 50db THE SCREEN COULD LOOKING CLEAR AND 80db THE SCREEN DON'T INFLECT (VOLT SCALE VHF  $\approx$  2.16V+0.5-0.5  $\approx$  UHF 1.58V+0.5-0.5)
7. BRIGHT ADJUSTMENT:  
ADJUST THE SVR602 ENABLE VOLTMETER TO DC2.4V(+1~-1V)
8. VOLTMEFER TEST:  
TEST.TP VOLTMEFER TP5(10V+/-0.4V) TP3(17.5V+/-0.5V)TP2(-7+/-1.5V) TP4(28V+/-2V)TP19(-20+/-2V)
9. FREQUENCY RANGE ADJUSE AND SETTING
  - 1)VHF ADJUSE:SWITCH SW204 TO VHF (DOW) RED SCANNING PILOT LINE AUTO SCANNING ADJUST SVR102 AND SVR104 TO FREQUENCY RANGE
  - 2)UHF ADJUSE:SWITCH SW204 TO UHF (UP) GREY SCANNING PILOT LINE AUTO SCANNING ADJUST SVR105 AND SVR103 TO FREQUENCY RANGE
10. APC ADJUSTMENT:  
ADJUST THE VR605 ENABLE CHROMINANCE SUBCARNER FREQ~8864500MH (+-300)
11. VOLUME ADJUSE(EXT VR):  
ADJUST VR301 TEST VOLUME FUNCTION
12. BRIGHT ADJUSTMENT(EXT VR):  
ADJUST THE BRIGHT VR903 TEST FUNCTION
13. COLOR ADJUSTMENT(EXT VR):  
ADJUST VR603 TEST COLOR FUNCTION
14. BALANCE SETTING WITH ADJUST:  
COLOR ANALYZER SETTING

		LOW BRIGHT	HIGH BRIGHT	ALL BRIG
X -ADJUST	VR901	249(+/-10)	270(+/-10)	283(+/-15)
y- ADJUST	VR902	300(+/-10)	320(+/-10)	326(+/-15)
Y- ADJUST	VR602	7.8 (+/-2)	16(+/-3)	26(+/-5)

REGULATIVITY ADJUST: IN WHITE PICTURE RECEIVER



## CIRCUIT DIAGRAM

## CIRCUIT DIAGRAM

